

CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A holographic data storage device including:
holographic media for containing data, writing data to and reading data from;
at least one supplemental memory for containing at least a first portion of a directory of the data contained in the holographic media.
2. The device of claim 1 wherein a second portion of the directory of the data contained on the holographic media is included on the holographic media.
3. The device of claim 2 wherein the first portion of the directory includes pointers to holographic media map information on the holographic media.
4. The device of claim 1 wherein the first portion of the directory includes holographic media map information.
5. The device of claim 1 wherein the first portion of the directory contains security information.
6. The device of claim 1 wherein the first portion of the directory contains identification information for the holographic media.
7. The device of claim 1 wherein the supplemental memory includes an EEPROM.
8. The device of claim 7 wherein the supplemental memory may be wirelessly accessed.
9. The device of claim 8 wherein the supplemental memory may be accessed via radio frequency signals.
10. The device of claim 7 wherein the supplemental memory is accessed via electrical contacts.

11. The device of claim 1 wherein both the holographic media and the supplemental memory are included in a cartridge.
12. The device of claim 11 including a holographic disk drive having a supplemental memory reader/writer, wherein the supplemental memory may be accessed by the supplemental memory reader/writer.
13. The device of claim 11 wherein the supplemental memory may be wirelessly accessed by the supplemental memory reader/writer.
14. The device of claim 13 wherein the supplemental memory may be accessed by radio frequency signals.
15. The device of claim 11 including a hand-held supplemental memory reader/writer wherein the supplemental memory may be accessed by the hand-held supplemental memory reader/writer.
16. The device of claim 11 including a plurality of holographic storage cartridges stored in a jukebox including a supplemental memory reader/writer wherein each of the plurality of holographic storage cartridges includes a supplemental memory which may be read by the supplemental memory reader/writer.
17. A method of managing the contents of a holographic storage device including:
 - storing data in a holographic media;
 - storing at least a first portion of a directory for the data in the holographic media in a supplemental memory located adjacent to the holographic media.
18. The method of claim 17 wherein both the holographic media and the supplemental memory are included in a housing.
19. The method of claim 17 including writing new data to the holographic media including:
 - reading directory information from the supplemental memory;
 - using the directory information to identify un-written to area on the holographic media;

writing the new data to at least a portion of the un-written area on the holographic media;
and

updating at least the first portion of the directory on the supplemental memory with
directory information about the new data.

20. The method of claim 17 including reading requested data from the holographic media including:

reading directory information from the supplemental memory;

using the directory information to identify un-written to area on the holographic media;

using the directory information to determine the location of the requested data on the
holographic media; and

reading the requested data from the holographic media.

21. The method of claim 20 further including determining if a received request is to read an area of the holographic media not written to and, a received request is to read an area of the holographic media not written to, not carrying out the received request.

22. The method claim 17 including accessing the supplemental memory with a supplemental memory reader/writer.

23. The method of claim 22 wherein accessing the supplemental memory includes accessing the supplemental memory via electrical contacts.

24. The method of claim 22 wherein accessing the supplemental memory includes wirelessly accessing the supplemental memory.

25. The method of claim 22 wherein accessing the supplemental memory includes accessing the supplemental memory using radio frequency signals.

26. The method of claim 22 wherein the holographic media and supplemental memory are included in a cartridge.

27. The method of claim 26 wherein the supplemental memory reader/writer is contained in a holographic disk drive.
28. The method of claim 26 wherein the supplemental memory reader/writer is contained in a hand-held unit.
29. The method of claim 28 wherein the first portion of the directory includes identification information for the holographic media.
30. The method of claim 29 further including:
 - storing a plurality of holographic storage cartridges in a warehouse, each holographic storage cartridge including holographic media and supplemental memory; and
 - including at least one keyword in the identification information;
 - reading the keyword from at least one of the plurality of holographic storage cartridges using the handheld reader.
31. The method of claim 17 wherein:
 - the cartridge is stored in a jukebox along with a plurality of other cartridges each cartridge having holographic media and a supplemental memory including a directory of data stored in the holographic media; and
 - the supplemental memory reader/writer is included in the jukebox.
32. The method of claim 17 wherein a second portion of the directory in the holographic media.
33. The method of claim 32 wherein:
 - at least a holographic media map is stored in the second portion of the directory; and
 - at least pointers to the holographic media map are stored in the first portion of the directory.

34. The method of claim 17 with first portion of the directory includes a holographic media map.
35. The method of claim 17 wherein the first portion of the directory includes security information.